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# LDEQ's New Vision 2021: An Evolving Approach to the TMDL Program

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# What Is A TMDL?

- Total Maximum Daily Load
- $TMDL = WLA + LA + MOS + FG$ 
  - WLA = Wasteload Allocation (point source loads)
  - LA = Load Allocation (Nonpoint Source Loads)
  - MOS + Margin of Safety (implicit/explicit)
  - FG = Future Growth
- In short, a TMDL represents the maximum amount of loading that a waterbody can assimilate, while maintaining the water quality standards. Think of it as a pollution budget for the waterbody.
- Can be developed for any parameter
- Determines permit limits for point sources and load reductions required for nonpoint sources

# TMDL Regulations

- TMDL requirements were established in Section 303(d) of the Clean Water Act; additional clarification is provided in the Code of Federal Regulations (40 CFR 130.7)
- States must:
  - identify impaired waters
  - establish priority ranking
  - establish TMDLs for those pollutants suspected to cause the impairments
- TMDLs must be completed for all waterbody/parameter combinations, but a higher priority is given to impaired waterbodies.
- If States do not develop TMDLs, EPA must.

# Results of the Consent Decree TMDLs

- Over 700 TMDLs developed for Louisiana waterbodies.
- Covered parameters such as dissolved oxygen, fecal coliform, nutrients, lead, copper, mercury, noxious aquatic plants.
- Required the development of some TMDLs based on inappropriate dissolved oxygen criteria.
- Required nutrient monitoring of permitted facilities in some areas.

# Example: Grays Creek Phased TMDL for Dissolved Oxygen (040304)

- New discharges
  - Facility demonstrates it will provide reductions of man-made oxygen demanding loads
    - Provide improved sewage treatment to multiple subdivisions previously serviced by wastewater treatment plants incapable of treating to tertiary limits
    - Provide service to previously unsewered areas
  - Facility demonstrates that its wastewater will not leave the facility or its property
    - Effluent reduction systems; overland flow
    - For areas in which regional collection and treatment systems are being built - must agree to tie into those regional collection systems once available

# Example: Grays Creek Phased TMDL for Dissolved Oxygen (040304)

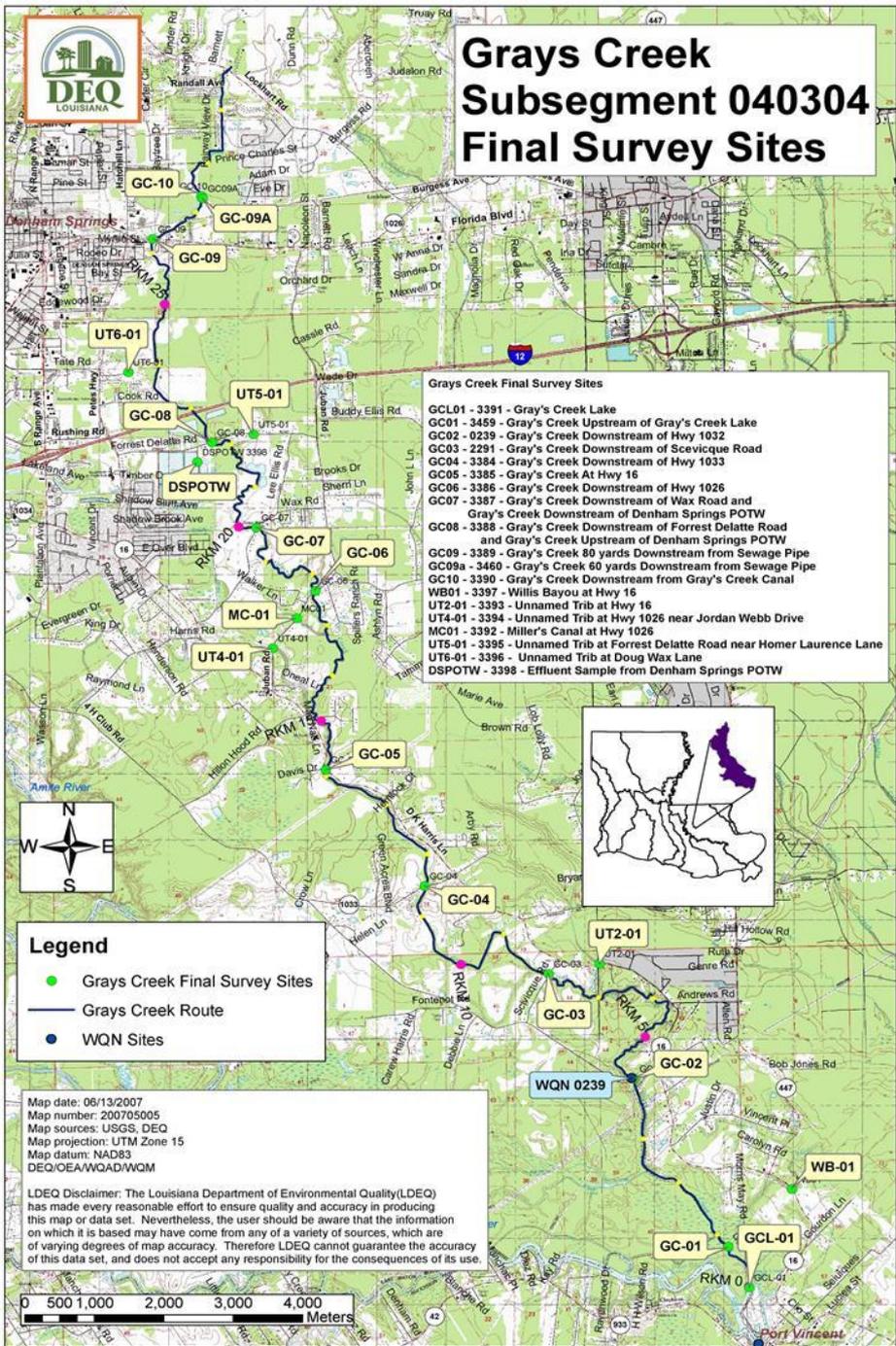
- Existing discharges
  - Facilities (with effluent flow less than or equal to 25,000 gpd) with monthly average limitations of 30 mg/L BOD<sub>5</sub> or weekly average limitations of 45 mg/L BOD<sub>5</sub> will receive a compliance schedule of up to 3 years with final limitations of 10 mg/L BOD<sub>5</sub> / 2 mg/L NH<sub>3</sub> / 5 mg/L DO (with post aeration);
  - Facilities (with effluent flow greater than 25,000 gpd) with limitations of 10 mg/L BOD<sub>5</sub> will receive a compliance schedule of up to 3 years with final limitations of 5 mg/L BOD<sub>5</sub> / 2 mg/L NH<sub>3</sub> / 5 mg/L DO (with post aeration);
  - The following facilities will keep their current limits of 5 mg/L BOD<sub>5</sub> / 2 mg/L NH<sub>3</sub> / 5 mg/L DO:
    - Grays Creek Subdivision (AI # 145156)
    - Gulfstream Estates and Gulfstream Townhomes (AI# 148345)
    - Stone Hill Subdivision (AI# 150779)

# Example: Grays Creek Phased TMDL for Dissolved Oxygen (040304)

- Nutrient monitoring for all discharges
- Reporting for:
  - Total Nitrogen and Total Phosphorus
- Required interim reduction of 85% of the overall nonpoint loading



# Grays Creek Subsegment 040304 Final Survey Sites



### Grays Creek Final Survey Sites

- GCL01 - 3391 - Gray's Creek Lake
- GC01 - 3459 - Gray's Creek Upstream of Gray's Creek Lake
- GC02 - 0239 - Gray's Creek Downstream of Hwy 1032
- GC03 - 2291 - Gray's Creek Downstream of Scevicque Road
- GC04 - 3384 - Gray's Creek Downstream of Hwy 1033
- GC05 - 3385 - Gray's Creek At Hwy 16
- GC06 - 3386 - Gray's Creek Downstream of Hwy 1026
- GC07 - 3387 - Gray's Creek Downstream of Wax Road and Gray's Creek Downstream of Denham Springs POTW
- GC08 - 3388 - Gray's Creek Downstream of Forrest Delatte Road and Gray's Creek Upstream of Denham Springs POTW
- GC09 - 3389 - Gray's Creek 80 yards Downstream from Sewage Pipe
- GC09a - 3460 - Gray's Creek 60 yards Downstream from Sewage Pipe
- GC10 - 3390 - Gray's Creek Downstream from Gray's Creek Canal
- WB01 - 3397 - Willis Bayou at Hwy 16
- UT2-01 - 3393 - Unnamed Trib at Hwy 16
- UT4-01 - 3394 - Unnamed Trib at Hwy 1026 near Jordan Webb Drive
- MC01 - 3392 - Miller's Canal at Hwy 1026
- UT5-01 - 3395 - Unnamed Trib at Forrest Delatte Road near Homer Laurence Lane
- UT6-01 - 3396 - Unnamed Trib at Doug Wax Lane
- DSPOTW - 3398 - Effluent Sample from Denham Springs POTW

### Legend

- Grays Creek Final Survey Sites
- Grays Creek Route
- WQN Sites

Map date: 06/13/2007  
 Map number: 200705005  
 Map sources: USGS, DEQ  
 Map projection: UTM Zone 15  
 Map datum: NAD83  
 DEQ/OEA/WQAD/WQM

LDEQ Disclaimer: The Louisiana Department of Environmental Quality (LDEQ) has made every reasonable effort to ensure quality and accuracy in producing this map or data set. Nevertheless, the user should be aware that the information on which it is based may have come from any of a variety of sources, which are of varying degrees of map accuracy. Therefore LDEQ cannot guarantee the accuracy of this data set, and does not accept any responsibility for the consequences of its use.







# Denham Spring POTW

- Previous plant was sampled during the TMDL survey (June 24-26, 2007)
- New plant began operations June 22, 2009
  - For period from June – August 2009:
    - Average UBOD load reduction from 35% - 55%
  - For period from September 2009 – December 2009:
    - Average UBOD load reduction from 50% - 70 %
- Expanded the collection system
  - Included approximately 1800 new customers

# LDEQ's NEW VISION



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# New Long-Term Vision for Assessment, Restoration, and Protection under the CWA Section 303(d) Program

- Includes goal statements for prioritization, assessment, protection, alternatives, engagement, and integration.
- Allows states to define priorities for restoration and protection activities.
- New metric is based on the individual State's defined priorities and a projected percentage of completion.
- The time period is 2016 – 2022.

# Mission Statement

The Clean Water Act Section 303(d) Program provides for effective integration of implementation efforts to restore and protect the nation's aquatic resources, where the nation's waters are assessed, restoration and protection objectives are systematically prioritized, and Total Maximum Daily Loads and alternative approaches are adaptively implemented to achieve water quality goals with the collaboration of States, Federal agencies, tribes, stakeholders, and the public.

# Goal Statements

- “Engagement” By 2014, EPA and the States actively engage the public and other stakeholders to improve and protect water quality, as demonstrated by documented, inclusive, transparent, and consistent communication; requesting and sharing feedback on proposed approaches; and enhanced understanding of program objectives.
- “Prioritization” For the 2016 integrated reporting cycle and beyond, States review, systematically prioritize, and report priority watersheds or waters for restoration and protection in their biennial integrated reports to facilitate State strategic planning for achieving water quality goals.
- “Protection” For the 2016 reporting cycle and beyond, in addition to the traditional TMDL development priorities and schedules for waters in need of restoration, States identify protection planning priorities and approaches along with schedules to help prevent impairments in healthy waters, in a manner consistent with each State’s systematic prioritization.

# Goal Statements

- **“Integration”** By 2016, EPA and the States identify and coordinate implementation of key point source and nonpoint source control actions that foster effective integration across CWA programs, other statutory programs (e.g., CERCLA, RCRA, SDWA, CAA), and the water quality efforts of other Federal departments and agencies (e.g., Agriculture, Interior, Commerce) to achieve the water quality goals of each State.
- **“Alternatives”** By 2018, States use alternative approaches, in addition to TMDLs, that incorporate adaptive management and are tailored to specific circumstances where such approaches are better suited to implement priority watershed or water actions that achieve the water quality goals of each State, including identifying and reducing nonpoint sources of pollution.
  - Such measures are expected to post-pone the need for a TMDL.
- **“Assessment”** By 2020, States identify the extent of healthy and CWA Section 303(d) impaired waters in each State’s priority watersheds or waters through site-specific assessments.

# Prioritization Factors and Criteria

Factors considered included:

- Criteria revisions
- Water quality trends
- Degree of impairment
- Permitting needs
- Restoration potential



# Prioritization Factors and Criteria (continued)

- Local government input
- National and State water quality initiatives
- Nutrient Management Strategy
- Stakeholder input
- Input from other agencies
- Funding

# Potential Partners

The Water Planning and Assessment Division will be the lead partner in this statewide effort. Other partners may include:

- Local stakeholders
  - Governments
  - Industrial organizations
  - Agricultural organizations
  - Silviculture organizations
  - Environmental organizations
  - Waterbody-based organizations

# Potential Partners (continued)

- State agencies
  - Dept. of Health
  - Dept. of Wildlife and Fisheries
  - Dept. of Natural Resources
  - Dept. of Agriculture and Forestry
  - Coastal Protection and Restoration Authority
- Internal to LDEQ
  - Nonpoint Source Pollution Program/watershed coordinators
  - Surveillance & Enforcement Divisions
  - Assessment Division

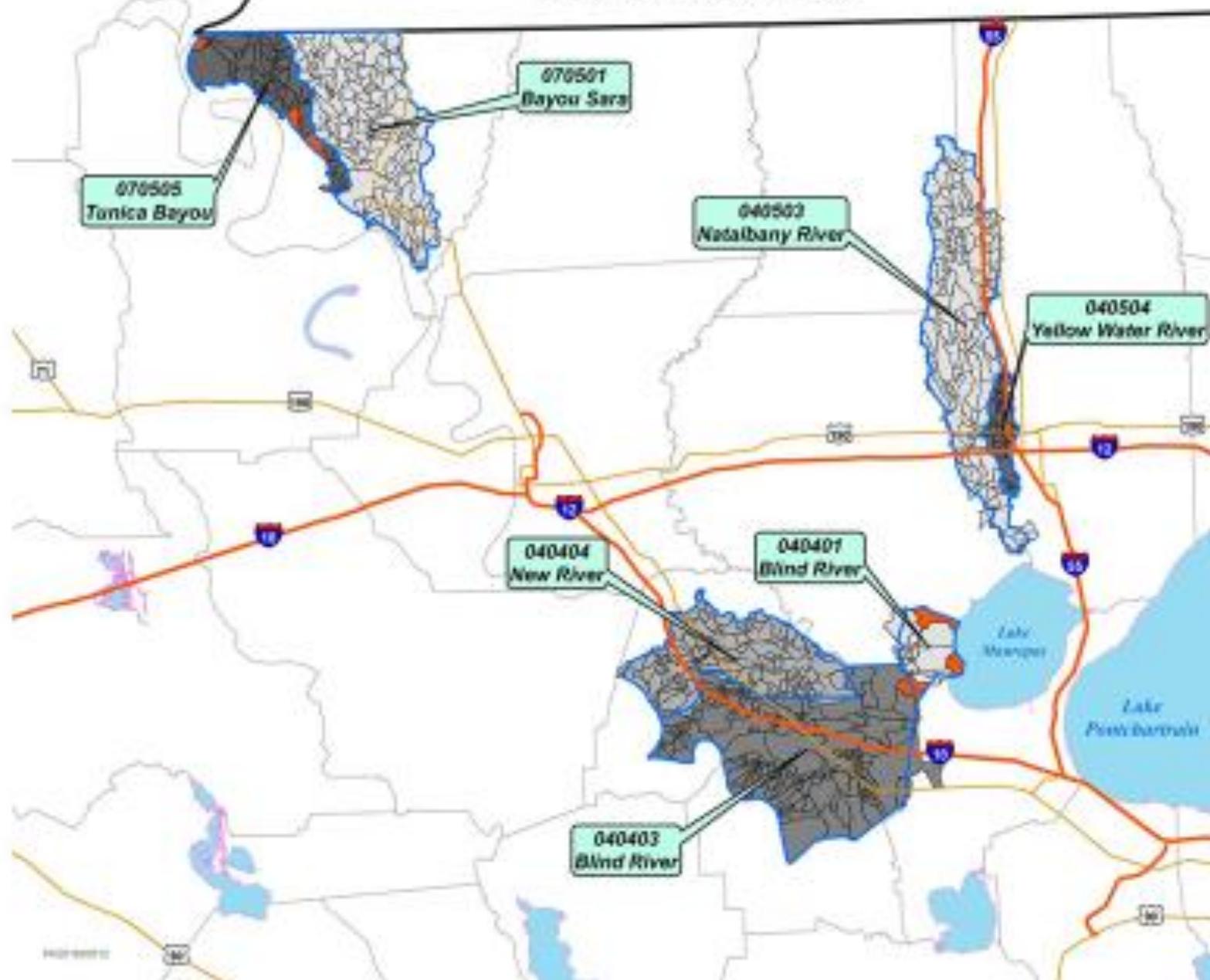
# Potential Partners (continued)

- Federal Agencies
  - EPA
  - U.S. Fish and Wildlife Service
  - Natural Resource Conservation Service
  - United States Department of Agriculture

# Louisiana's Priority Waterbodies

Projected Completion Year	Subsegment	Waterbody Name
2016	070505	Tunica Bayou – from headwaters to Mississippi River
2019	040504	Yellow Water River – from headwaters to Ponchatoula Creek
2019	040503	Natalbany River – from headwaters to Tickfaw River
2020	070501	Bayou Sara – from Mississippi state line to Mississippi River
2021	040403; 040401	Blind River - from headwaters to Amite River Diversion Canal; Blind River – from Amite River Diversion Canal to mouth at Lake Maurepas
2022	040404	New River – from headwaters to New River Canal

# *Southern Priority LDEQ Subsegments and Catchments*



# Alternatives to TMDLs

- EPA is now approving use of watershed restoration or protection plans and other alternative activities, where appropriate, as well as traditional TMDLs when meeting requirements of CWA section 303(d). TMDLs may be the appropriate tool in some cases.
- With EPA approval, use of watershed plans and other alternatives will allow placement of impairments in Integrated Report (IR) Category 4b or 5-alternative instead of IR Category 5.
- Think of alternatives as **tailored** restoration and protection strategies.

# Watershed Restoration/ Protection Efforts

- By better engaging local citizens and water protection organizations (Pontchartrain Conservancy, Bayou Vermilion District, etc.) it is hoped that more support for water pollution control efforts can be garnered.
- As the process is developed, we incorporated media and web-based outreach efforts to encourage local participation in water quality improvement efforts.

# Watershed Restoration/ Protection Efforts (continued)

- Coordinate watershed prioritization with existing ambient water quality monitoring.
- Supplement ambient monitoring with targeted sampling to determine sources of pollutants and track water quality trends.
- Conduct waterbody sweeps by regional office staff and others similar to Inspections Division existing waterbody efforts.
- Inspect individual home wastewater treatment units
- Address pollutant sources as directly as possible through permitting, enforcement, NPS BMPs, etc.

# Watershed Restoration/ Protection Efforts (continued)

- Get all treatment units up to code and proper treatment levels
  - Issue permits for any unpermitted facilities
  - Issue Notices of Deficiency
  - Conduct corrective actions
  - May require compliance orders or other Enforcement actions
- Work with local government and organizations to develop ordinances as needed
- Consider other alternative forms of water quality restoration as needed (natural channel design)

# Activities

- Site visits
- Education and outreach
- Monitoring and assessment (previously discussed)
- Inspections of permitted facilities and OSDs (on-site disposal systems, individual treatment units)
- Data analysis
- Review of facility history for LDEQ permitted facilities
- Evaluate land uses
- Develop a plan (write the success story)

# Corrective Actions

- Public meetings – seek input of local government and the public; educate stakeholders – promote water quality.
- Get all wastewater treatment units up to code and proper treatment levels.
- Establish best management practices (BMPs) for nonpoint sources as needed
- Work with our partners to ensure OSDs are operating properly

# Corrective Actions

- Work with local governments and organizations as needed to conduct activities, develop ordinances, etc.
- ? - Other activities determined by what we learn from citizens and our investigations

# How Does this Benefit You?

- Secure the availability of future growth and development
- Ensure good water quality is available to future generations
- Provide clean water in your lakes, rivers, bayous, and ditches
- Ensure a stable watershed and channel for future generations
- Learn how activities conducted in the watershed affect the water quality and how water quality affects your daily life
- Have input into restoration/protection activities

# How Does this Benefit You?

- Public/stakeholder participation
- More flexibility and less restriction
- Address impairments directly and efficiently
- Learn about natural functions of the watershed and how hydrology and water quality go together – economic value

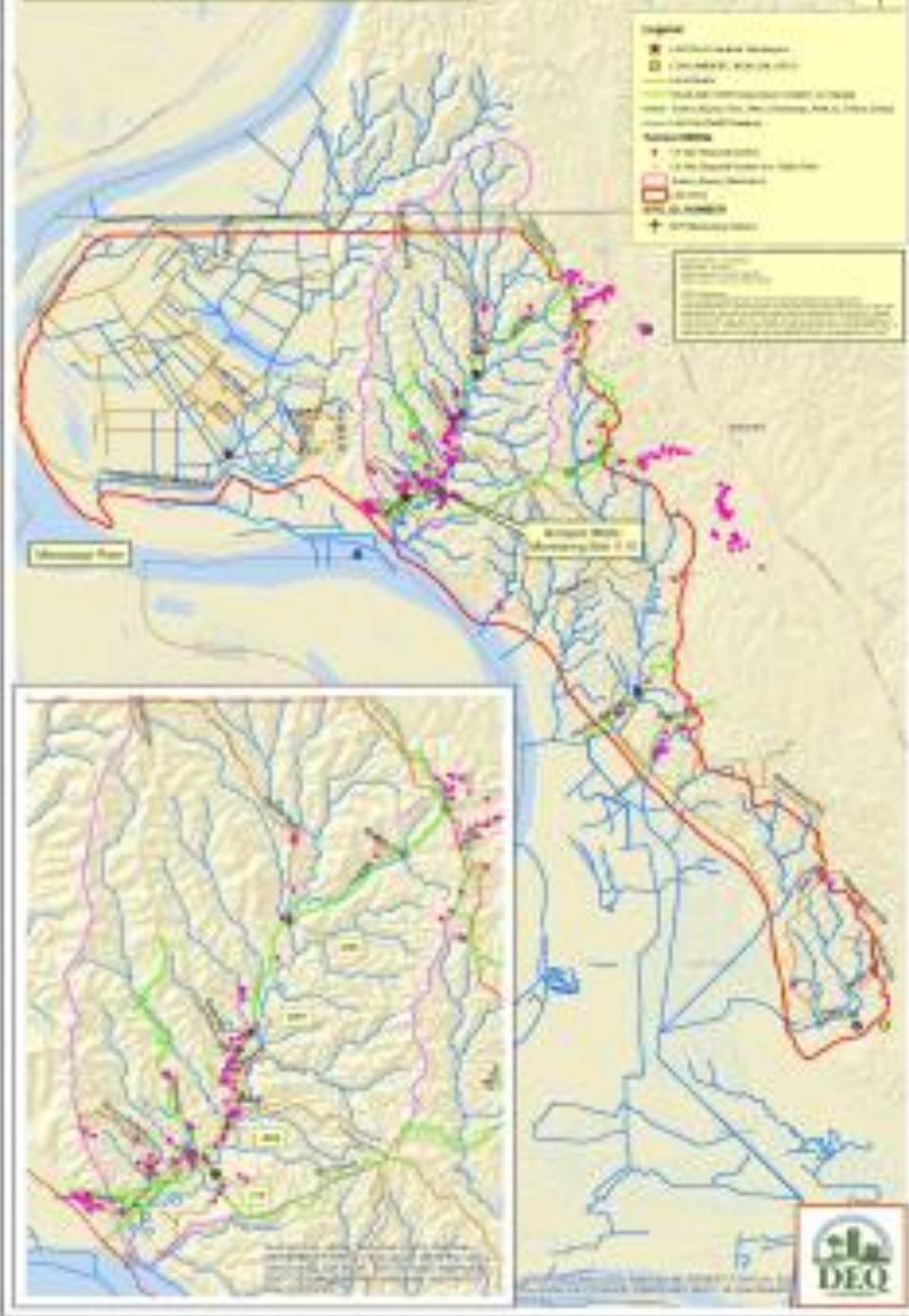
# How Might This Impact You ?

- Non-compliant permitted facilities will be required to make repairs and/or upgrades
- Unpermitted facilities will be required to obtain an LDEQ permit
- Non-functioning OSDs will be encouraged/required to make repairs (limited assistance may be available)
- May require some behavioral/cultural changes
- May be new ordinances or codes

# What Happens if Alternatives Are Not Effective

- TMDLs must be done
- May require more stringent permit limits
- May restrict new development

# Tunica Bayou (070505)





Houses #13, 22

House #18

Trailer Park

House #17

Caldwell Pond

House #16

Saw Mill

Church

Houses #8, 9, 10, 11

Houses #12, 13, 14, 15

Problem sewer system

Unpermitted Trailer Park

House #7

Church and house #6

Convenience Store

House #3

Google earth

Imagery Date: 11/15/2014 38°56'28.28" N 81°03'12.27" W elev: 24 ft 2015 ©

# Tunica Bayou (070505)

- Tunica Bayou
  - Met with the West Feliciana Parish President
  - Monitoring is complete
  - Restoration plan was approved by EPA on Oct. 5, 2020
  - Inspection of individual home wastewater treatment units and permitted facilities completed
  - Several individual home units have been repaired.
  - At least one permitted facility was referred to enforcement and repaired
  - Report was accepted by EPA on October 5<sup>th</sup>, 2020
  - We continue to review the data and assessments – as of the 2020 IR,
  - Fecal coliform (PCR) impairment remains, but have fecal coliform concentrations improved?

# **Yellow Water River (040504) & Natalbany River (040503)**



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LDEQ Priority Subsegments 040583-Natalbany & 040584-Yellow Water River



# Parameters being Addressed

- Yellow Water River (040504)
  - Dissolved Oxygen criterion – 5 mg/L; fully supported; median = 6.74 mg/L; trend - increasing
  - Total Phosphorus - No criteria; median value = 1.21 mg/L; trend - steady
  - Nitrate-Nitrite - No criteria; median value = 3.2 mg/L; trend – decreasing
  - Fecal coliform criterion – 400/2,000 cfu/100 mL; impaired for PCR; median = 160/100 mL; trend – decreasing (prior to 2016)
- Natalbany River (040503)
  - Dissolved Oxygen criterion – 5 mg/L; impaired; median = 5.7 mg/L; trend - steady
  - Total Phosphorus – No criteria; median = 0.16 mg/L; trend - steady
  - Nitrate-Nitrite – No criteria; median = 0.25 mg/L; trend - decreasing

# Impairment History

- Yellow Water River (040504)
  - Impaired due to low DO in 2004-2010; DO not impaired 2014-2018; impaired in **2020 - Why?**
  - Suspected impairment due to Nutrients in 2000-2006.
  - Impaired due to fecal coliforms from 2002 - 2008 (PCR & SCR); 2010 – 2016 (PCR only), 2018 (PCR only), 2020 (PCR & SCR).
  - Impaired due to Total Dissolved Solids (TDS) in 2018 & 2020.
  - What is the reason for the increase in impairments between 2018 and 2020? What years were the assessment data collected?

# Impairment History

- Upper Natalbany River (040503)
  - Impaired due to low DO in 2004-2020.
  - Suspected impairment due to Nutrients in 2000, 2004, and 2006.
  - Impaired due to fecal coliforms from 2002 – 2014, 2020 (PCR only).
  - Listed for mercury in fish tissue in 2018 and 2020
  - Listed for low pH in 2018.
- Lower Natalbany River (040507)
  - New subsegment; first assessed in the 2018 Integrated Report
  - Listed as impaired for mercury in fish tissue in 2018 and 2020.
  - Impaired for low pH in 2018.
  - Impaired for temperature and low DO in 2020.

# Yellow Water River (040504) Ambient Monitoring Data

- WQN Site 0299, Yellow Water River west of Ponchatoula, LA
- 1991-2018 - 27 of 104 samples (25.96%) fell below the DO criterion of 5 mg/L (10% max allowed).
- 2013/2014 cycle - 0 of 12 samples (0.0%) fell below the DO criterion of 5 mg/L.
- 2017/2018 Cycle - 2 of 12 samples (16.7%) fell below the DO criterion of 5 mg/L.

# Yellow Water River (040504)

## Ambient Monitoring Data

- 1991-2018 - 61 of 76 samples (80.3%) exceeded the PCR criterion of 400 cfu/100 mL; 70 of 153 samples (45.8%) exceeded the SCR criterion of 2,000 cfu/100 mL.
- 2013/2014 cycle - 4 of 6 samples (66.7%) exceeded the PCR criterion.; 0 of 12 samples (0.0%) exceeded the SCR criterion.
- 2017/2018 cycle - 6 of 6 samples (100.0%) exceeded the PCR criterion; 5 of 12 samples (41.7%) exceeded the SCR criterion.

# Upper Natalbany River (040503) Ambient Monitoring Data

- WQN Site 0298, Natalbany River west of Ponchatoula, LA
- 1991-2018 - 32 of 104 samples (30.8%) fell below the DO criterion of 5 mg/L (10% max allowed).
- 2013/2014 cycle - 3 of 12 samples (25.0%) fell below the DO criterion of 5 mg/L.
- 2017/2018 cycle - 6 of 12 samples (50.0%) fell below the DO criterion of 5 mg/L.

# Upper Natalbany River (040503)

## Ambient Monitoring Data

- 1991-2018 - 19 of 50 samples (38.0%) exceeded the PCR criterion of 400 cfu/100 mL; 21 of 105 samples (20.0%) exceeded the SCR criterion of 2,000 cfu/100 mL (25% max allowed).
- 2013/2014 cycle - 1 of 6 samples (16.7%) exceeded the PCR criterion; 0 of 12 samples (0.0%) exceeded the SCR criterion.
- 2017/2018 cycle - 3 of 6 samples (50.0%) exceeded the PCR criterion; 3 of 12 samples (25.0%) exceeded the SCR criterion.

# Lower Natalbany River (040507) Ambient Monitoring Data

- WQN Site 2654, Natalbany River Southeast of Springfield, LA
- 2018/2019 cycle - 6 of 12 samples (50.0%) fell below the DO criterion of 5 mg/L.
- 2018/2019 cycle - 1 of 6 samples (16.7%) exceeded the PCR criterion of 400 cfu/100 mL; 3 of 12 samples (25.0%) exceeded the SCR criterion of 2,000 cfu/100 mL.

# Potential Loading Sources

- Yellow Water River (040504)
  - LDEQ permitted point source – approximately 97
  - LDH permitted OSDSs – approximately 1,572
- Natalbany River (040503, 040507)
  - LDEQ permitted point sources – approximately 132
  - LDH permitted on-site disposal systems (OSDSs, individual wastewater treatment units) – approximately 4,061

# Where Are We Now?

# Yellow Water River (040504)

- Monitored water quality at 8 sites from March 2018 to October 2019.
  - High fecal coliform concentrations
  - High total dissolved solids concentrations
  - Investigations into the sources of the any high concentrations is ongoing. This includes inspections of LDEQ permitted point sources and individual home wastewater treatment units are ongoing.
- Clearing and snagging was conducted in discreet areas of the watershed during our monitoring period

# Yellow Water River (040504)

- Public outreach and education
  - Met with the Tangipahoa Parish President and the Parish Council
  - Formed a citizens advisory group to focus on water quality advocacy and obtain input from local citizens – develop local ownership
  - Developed a program video; developing several educational videos
  - Partnered with Tangipahoa Parish to provide water quality education to 4<sup>th</sup> graders
  - Plan outreach for various stakeholder groups like local chambers of commerce, and conferences
  - Citizen partners – have identified several issues which were investigated; this coordination continues
  - Developing the draft report

# Natalbany River (040503)

- Monitored water quality 12 sites from May 2019 – March 2021
- Monitoring for fecal coliform continues at 0298 (guide inspections)
- Inspection of LDEQ permitted point sources and individual home wastewater treatment plants are ongoing
- Temporarily halted/replaced monitoring at one site due to bridge replacement
- Clearing and snagging was conducted in discreet areas of the watershed

# Natalbany River (040503)

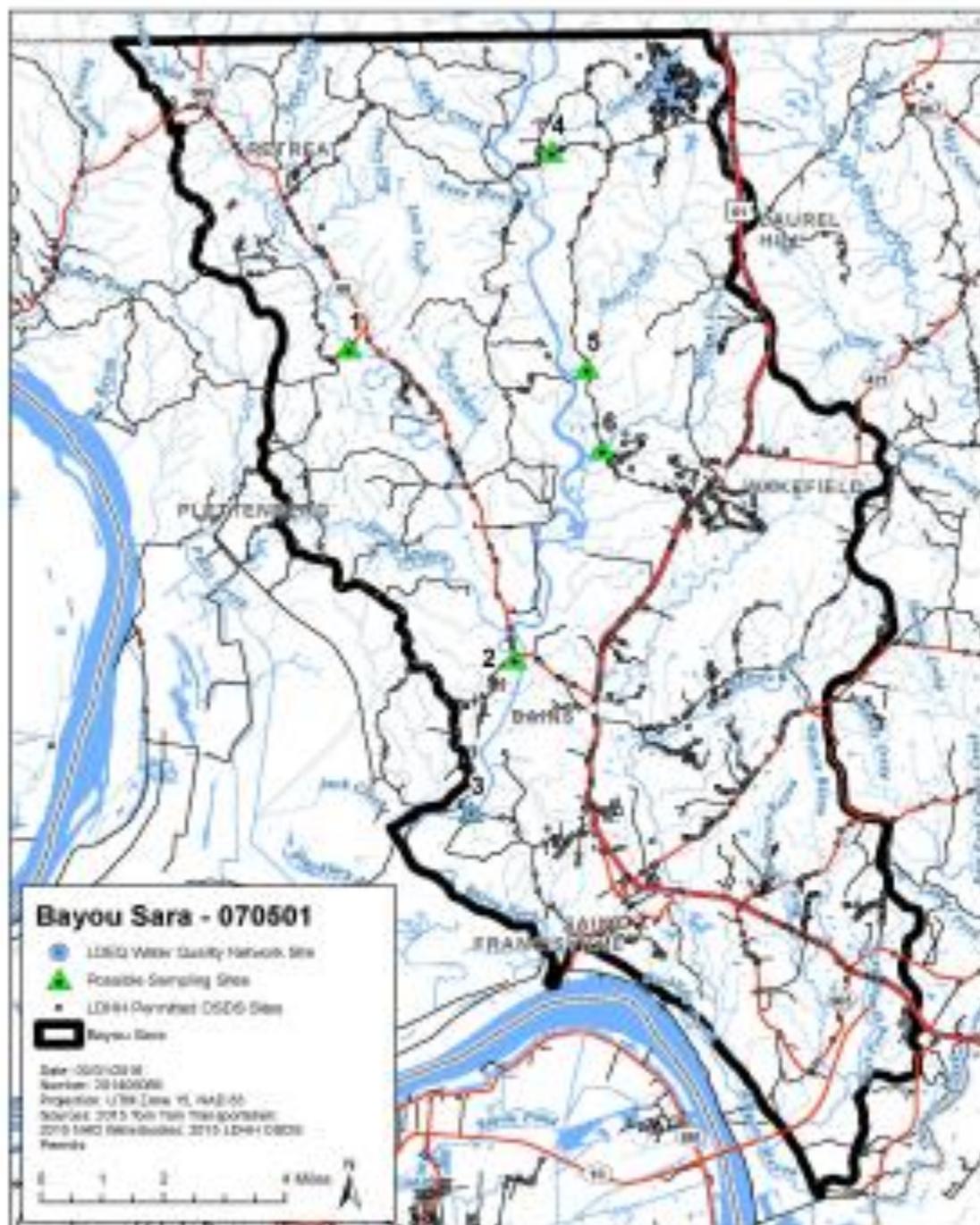
- Public outreach and education
  - Met with the Tangipahoa Parish President and the Parish Council
  - Formed a citizens advisory group to focus on water quality advocacy and obtain input from local citizens – develop local ownership
  - Developed a program video; developing several educational videos
  - Partnered with Tangipahoa Parish to provide water quality education to 4<sup>th</sup> graders
  - Plan outreach for various stakeholder groups like local chambers of commerce, and conferences
  - Citizen partners – have identified several issues which were investigated; this coordination continues
  - Draft report expected in late 2021\early 2022.

# Bayou Sara (070501)



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# 070501 Bayou Sara Impairment History

- Parameter being addressed – fecal coliform
- Listed for fecal coliform impairments in:
  - 2002-2008 (PCR only)
  - 2010-2012 – no fecal coliform impairment listed
  - 2014-2016 (PCR only) ; ***2018, 2020 – no fecal coliform impairments listed; waterbody is fulling supporting all designated uses***

# Bayou Sara (070501) Ambient Monitoring Data

- WQN Site 1108, Bayou Sara South of Solitude, LA
- 2001-2017 – 8 of 29 samples (27.6%) exceeded the PCR criterion of 400 cfu/100 mL; 6 of 55 samples (10.9%) exceeded the SCR criterion of 2,000 cfu/100 mL (25% max allowed).
- 2012/2013 cycle – 2 of 6 samples (33.3%) exceeded the PCR criterion and 3 of 12 (25.0%) exceeded the SCR criterion.

# Bayou Sara (070501) Ambient Monitoring Data

- 2016/2017 cycle – 1 of 6 samples (16.7%) exceeded the PCR criterion and 1 of 12 samples (8.3%) exceeded the SCR criterion.
- 2019/2020 cycle - 3 of 6 samples (50.0%) exceeded the PCR criterion and 1 of 12 samples (8.3%) exceeded the SCR criterion; possible PCR impairment listing in 2022.

# Potential Loading Sources

- LDEQ permitted point sources – approximately 31
- LDH permitted on-site disposal systems (OSDSs) – approximately 1161

# Where Are We Now?

# Bayou Sara (070501)

- Addressing fecal coliform impairments
- Met with the West Feliciana Parish President and his staff
- Conducted inspection of LDEQ permitted point sources and individual home wastewater treatment systems
- Several malfunctioning systems were found and repaired
- Success Story - Bayou Sara is no longer impaired as of the draft 2018 and 2020 Integrated Reports
- Caution – may be listed in the 2022 Integrated Report (PCR); what is the reason for the increases in fecal coliform?

**Blind River (040401, 040403)  
&  
New River (040404)**





# Parameters being Addressed

- Blind River (040401)
  - Dissolved oxygen criterion – 2.3 mg/L (Mar-Nov), 5 mg/L (Dec-Feb); impaired; median = 7.06 mg/L; trend - steady
  - Total phosphorus – No criteria; median = 0.15 mg/L; trend - steady
  - Nitrate-nitrite – No criteria; median = 0.05 mg/L; trend – decreasing
  - Fecal coliform criterion – 400/2,000 cfu/100 mL; fully supported; median = 18.0 cfu/100 mL; trend - steady
- Blind River (040403)
  - Dissolved oxygen criterion – 2.3 mg/L (Mar-Nov), 5 mg/L (Dec-Feb); impaired; median = 5.38 mg/L; trend - steady
  - Total phosphorus - No criteria; median value = 0.15 mg/L; trend - steady
  - Nitrate-nitrite - No criteria; median value = 0.05 mg/L; trend – steady
  - Fecal coliform criterion – 400/2,000 cfu/100 mL; fully supported; median = 14.0 cfu/100 mL; trend - steady

# Parameters being Addressed

- New River (040404)
  - Dissolved oxygen criterion – 2.3 mg/L (Mar-Nov), 5 mg/L (Dec-Feb); impaired; median = 3.74 mg/L; trend - steady
  - Total phosphorus – No criteria; median = 0.55 mg/L; trend - steady
  - Nitrate-nitrite – No criteria; median = 0.08 mg/L; trend – steady
  - Fecal coliform – 400/2,000 cfu/100 mL; impaired; median = 124 col/100 mL; trend - decreasing

# Impairment History

- Blind River (040401)
  - On original Consent Decree for TMDL development.
  - Impaired due to low DO in 2002-2006 & 2012-2016.
  - Suspected impairment due to Nutrients in 2004 & 2006.
  - Impaired due to fecal coliforms – not since 2000.
  - Impaired due to turbidity, mercury in fish tissue, and non-native aquatic plants in 2018 and 2020.
  - Impaired due to temperature in 2020.

# Impairment History

- Blind River (040403)
  - On original Consent Decree for TMDL development.
  - Impaired due to low DO in 2000-2006 & 2012-2018.
  - Suspected impairment due to Nutrients in 2000-2006.
  - Impaired due to fecal coliforms – 2000.
  - Impaired due to mercury in fish tissue, and non-native aquatic plants in 2018 and 2020.
  - Impaired due to temperature and turbidity in 2020.

# Impairment History

- New River (040404)
  - Included in original Consent Decree for TMDL development.
  - Impaired due to low DO in 2002-2020.
  - Suspected impairment due to Nutrients – not since 2000.
  - Impaired due to fecal coliforms – 2002-2018 (PCR only in 2018).
  - Impaired due to non-native aquatic plants in 2018 and 2020.

# Blind River (040401) Ambient Monitoring Data

- WQN Site 1102, Blind River at Lake Maurepas, SE of French Settlement
- 2001-2018 – 16 of 62 samples (25.8%) fell below the DO criterion of 4 mg/L (10% max. allowed).
- 2013/2014 cycle – 5 of 12 samples (41.7%) fell below the DO criterion of 4.0 mg/L.
- 2017/2018 cycle – 1 of 12 samples (8.3%) fell below the DO criterion of 4.0 mg/L.

# Blind River (040401) Ambient Monitoring Data

- 2001-2018 – 1 of 28 samples (3.6%) exceeded the PCR criterion of 400 cfu/100 mL; 0 of 60 samples (0.0%) exceeded the SCR criterion of 2,000 cfu/100 mL (25% max. allowed).
- 2013/2014 cycle – 0 of 6 samples (0.0%) exceeded the PCR criterion; 0 of 12 samples (0.0%) exceeded the SCR criterion.
- 2017/2018 cycle – 0 of 6 samples (0.0%) exceeded the PCR criterion; 0 of 12 samples (0.0%) exceeded the SCR criterion.

# Blind River (040403) Ambient Monitoring Data

- WQN Site 0243, Blind River east of Gonzales, LA
- 2001-2018 – 12 of 62 samples (19.4%) fell below the DO criterion of 3 mg/L (10% max allowed).
- 2013/2014 cycle – 4 of 12 samples (33.3%) fell below the DO criterion of 3 mg/L.
- 2017/2018 cycle – 1 of 12 samples (8.3%) fell below the DO criterion of 3 mg/L.

# Blind River (040403) Ambient Monitoring Data

- 2001-2018 – 0 of 28 samples (0.0%) exceeded the PCR criterion of 400 cfu/100 mL; 0 of 60 samples (0.0%) exceeded the SCR criterion of 2,000 cfu/100 mL (25% max allowed).
- 2013/2014 cycle – 0 of 6 samples (0.0%) exceeded the PCR criterion; 0 of 12 samples (0.0%) exceeded the SCR criterion.
- 2017/2018 cycle – 0 of 6 samples (0.0%) exceeded the PCR criterion; 0 of 12 samples (0.0%) exceeded the SCR criterion.

# New River (040404) Ambient Monitoring Data

- WQN Site 1103, New River NE of Sorrento (Hwy. 937 Bridge)
- 2001-2018 – 35 of 44 samples (79.6%) fell below the DO criterion of 5 mg/L (10% max allowed).
- 2012/2013 cycle – 9 of 12 samples (75.0%) fell below the DO criterion of 5 mg/L.
- 2018/2019 cycle – 11 of 12 samples (91.7%) fell below the DO criterion of 5 mg/L.

# New River (040404) Ambient Monitoring Data

- 2001-2019 – 12 of 28 samples (42.9%) exceeded the PCR criterion of 400 cfu/100 mL; 6 of 55 samples (10.9%) exceeded the SCR criterion of 2,000 cfu/100 mL (25% max allowed).
- 2012/2013 cycle – 2 of 6 samples (33.3%) exceeded the PCR criterion; 1 of 12 samples (8.3%) exceeded the SCR criterion.
- 2018/2019 cycle – 1 of 6 samples (16.7%) exceeded the PCR criterion; 0 of 12 samples (0.0%) exceeded the SCR criterion.

# Potential Loading Sources

- Blind River (040401)
  - LDEQ permitted point sources – no known permitted facilities
  - LDH permitted on-site disposal systems (OSDSs) – approximately 91
- Blind River (040403)
  - LDEQ permitted point source – approximately 112
  - LDH permitted OSDs – approximately 2,473
- New River (040404)
  - LDEQ permitted point source – approximately 368
  - LDH permitted OSDs – approximately 7,901

# Where Are We Now?



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# Blind River / New River

- Public Outreach and education
  - Have met with the Ascension Parish President and the Parish Council
  - Plan to establish citizens advisory groups and utilize our educational videos
  - Planning outreach for schools, local chambers of commerce, and conferences
- Began monitoring New River in the summer of 2021; Blind River monitoring expected to begin in the fall of 2021
- Plan to inspect LDEQ permitted point sources and individual home wastewater treatment plants
- Draft reports expected in late 2022\early 2023

# Moving Forward – Lessons Learned from New Vision 1.0

- *Thoughtful consideration - adaptive*
- COVID - 19
- TMDL Alternatives were much more resource intensive than traditional TMDLs
- Engagement\ Coordinating with local governments
- Coordinating with our Watershed Survey Staff & Nonpoint Source Pollution Program
- Progressing while taking on new activities:
  - Water Permits Program Support
  - Louisiana Watershed Initiative

# Moving Forward – New Vision 2.0

- *Thoughtful consideration – always learning*
- Utilizing most of the steps as in New Vision 1.0 – with a focus on coordination with our Nonpoint Source Program and Water Permits Division
- Planning for 2023 – 2032
  - Part 1 – years 1-3
  - Part 2 – years 4-6
  - Part 3 – years 7-10
- Including a mix of new TMDLs, TMDL revisions, and TMDL alternatives
- Considering new types of alternative restoration projects to better address the issues – stay tuned

# For More Information

- [www.deq.louisiana.gov/page/newvisionprogram](http://www.deq.louisiana.gov/page/newvisionprogram)
- [www.epa.gov/tmdl/new-vision-implementing-cwa-section-303d-impaired-waters-program-responsibilities](http://www.epa.gov/tmdl/new-vision-implementing-cwa-section-303d-impaired-waters-program-responsibilities)
- [www.deq.louisiana.gov/page/tmdl](http://www.deq.louisiana.gov/page/tmdl)
- If you would like to provide additional information, receive electronic notifications of plans available for public review, or participate in our restoration and protection efforts, email us at : [newvision.303d@la.gov](mailto:newvision.303d@la.gov)

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# Parting Shots

- “Your job is to help the river be whatever it wants to be”  
~Dave Rosgen Ph.D.
- “Water is the most critical resource issue of our lifetime and our children’s lifetime. The health of our waters is the principal measure of how we live on the land.” – Luna Leopold
- “The fairest thing in nature, a flower, still has its roots in earth and manure.” – D.H. Lawrence
- “Success is not final. Failure is not fatal. It is the courage to continue that counts.” – Winston Churchill
- “Success is the progressive realization of a worth ideal.” – Earl Nightingale

# Additional Resources

Tips to Maintain Home Sewage  
Systems (video)

<https://youtu.be/1v3JMnlevuo>

New Vision Program (video)

<https://youtu.be/YlJOBszsiA8>



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